



The Northern Ireland Baby Hearts Study: A Case-Control study using a hybrid data linkage method

McCullough, N., Dolk, H., Loane, M., Lagan, B. M., Casey, F., & Craig, B. (2018). The Northern Ireland Baby Hearts Study: A Case-Control study using a hybrid data linkage method. In M. Elliot (Ed.), *International Conference for Administrative Data Research* (2 ed., Vol. 3). (International Journal of Population Data Science). <https://doi.org/10.23889/ijpds.v3i2.549>

[Link to publication record in Ulster University Research Portal](#)

Published in:
International Conference for Administrative Data Research

Publication Status:
Published (in print/issue): 14/06/2018

Document Version
Publisher's PDF, also known as Version of record

General rights
Copyright for the publications made accessible via Ulster University's Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy
The Research Portal is Ulster University's institutional repository that provides access to Ulster's research outputs. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact pure-support@ulster.ac.uk.

International Journal of Population Data Science

Journal Website: www.ijpds.org



The Northern Ireland Baby Hearts Study: A Case-Control study using a hybrid data linkage method

McCullough, N^{1*}, Dolk, H¹, Loane, M¹, Lagan, BM¹, Casey, F², and Craig, B²

¹Institute of Nursing and Health Research, Ulster University

²Royal Belfast Hospital for Sick Children

Background

The Northern Ireland (NI) Baby Hearts study aimed to investigate risk factors for congenital heart defects (CHD), and to investigate the health behaviours of a representative sample of NI pregnant women.

Methods

We performed a case-control study with hybrid data collection methods, including self-administered iPad questionnaire or postal questionnaire, information held in maternity records and linkage to prescription records. Cases (n=286) were recruited following diagnosis prenatally or postnatally, controls (n=966) were recruited during recruitment months in each maternity unit at 18-20 weeks gestation.

Findings

Refusal rates for questionnaire completion were low (7-8%). Among those recruited, consent for access and linkage to medical records was high (98%). Recruitment of both cases and controls was closely representative of the NI population in terms of age, area of residence and deprivation. There was considerable discordance between self-report questionnaires, maternity records and prescription records regarding medications taken in the first trimester, and between self-report questionnaires and maternity records regarding behaviours such as preconceptional folic acid, pregnancy planning, and smoking. However, there were no differences between cases and controls that would indicate recall bias.

Conclusions

Our results suggest that hybrid data collection approaches are a useful way forward for aetiological studies.

*Corresponding Author:

Email Address: n.mccullough@ulster.ac.uk (N McCullough)

